

## Poseidon™ Repeat Free™ TEL/AML t(12;21) Fusion probe

**Introduction:** The TEL/AML1 t(12;21)(p13;q22) is the most common genetic abnormality found in childhood acute lymphoblastic leukemias (ALL). It is closely correlated with a B-cell precursor (BCP) phenotype and is considered a favorable prognostic factor. Double TEL/AML1 fusion, lack of TEL signal and extra AML1 signals can be detected as additional FISH abnormalities.

**Intended use:** The **TEL/AML t(12;21)(p13;q22) specific** DNA Probe is optimized to detect the reciprocal translocation t(12;21) in a dual-color, dual-fusion assay on metaphase/interphase spreads, blood smears and bone marrow cells.

The probe is recommended to be used in combination with a Poseidon FISH Kit providing necessary reagents to perform FISH (KBI-60002, KBI-60003 or KBI-60001) for optimal results.

**Critical region 1 (red):** The **TEL (12p13)** specific DNA probe is direct-labeled with PlatinumBright550.

**Critical region 2 (green):** The **AML (21q22)** control DNA probe is direct-labeled with PlatinumBright495.

**Reagent:** Poseidon probes are direct-labeled DNA probes provided in a ready-to-use format. Apply 10 µl of probe to a sample area of approximately 22 x 22 mm.

**Please refer to the Instructions for Use for the entire Poseidon FISH protocol.**

**Poseidon Repeat Free probes do not contain Cot-1 DNA. Hybridization efficiency is therefore increased and background, due to unspecific binding, is highly reduced.**

**Interpretation:** The **TEL/AML t(12;21)** probe is designed as a dual-fusion probe to detect both rearranged chromosomes der(12) and der(21) by two co-localized red/green or yellow fusion signals (F). Single color red (R) and green (G) signals will identify the normal chromosomes 12 and 21 respectively. Deletion of the unrearranged Tel region at 12p13 has been described as secondary event and will be observed as 2 fusion signals and 1 green signal at the normal chromosome 21.

Signal patterns other than those described above may indicate variant translocations, deletions on der(12) or der(21) or other complex rearrangements. Investigators are advised to analyze metaphase cells for the interpretation of atypical signal patterns.

	Normal Signal Pattern	t(12;21)	t(12;21), del (12p13)
Expected Signals	2R2G	2F1R1G	2F1G

**References:** Romana S et al, 1995, Blood; 3662-3670  
Ford A et al, 2001, Blood; 558-564

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## Application Manual

**KBI-10401**  
**ON TEL/AML t(12;21) Fusion**

IVD  
for EU only

CE



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